

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior listing of claims in this application.

1. (Canceled).

2. (Currently amended) The method of claim 8 wherein the wet oxidation with steam process is performed at a temperature in a range of about 450 °C to about 750 °C.

3. (Currently amended) The method of claim 8 wherein the wet oxidation with steam process is performed at a temperature in a range of about 750 °C to 950 °C.

4. (Currently amended) The method of claim 8 wherein the wet oxidation with steam process is carried out for a duration in a range of about 20 to about 60 seconds.

Claims 5-7 (Canceled).

8. (Currently amended) A method of fabricating a semiconductor device comprising:

depositing an oxygen-deficient dielectric film having a dielectric constant of at least about 25 over a semiconductor substrate;

subjecting the dielectric film to a densifying treatment to stabilize said film by heating said semiconductor substrate;

subjecting said stabilized dielectric film to a wet oxidation with steam process ~~provided by heating a mixture of hydrogen and oxygen gases in, said steam being carried to~~ a rapid thermal process chamber, wherein said rapid thermal process

chamber is kept at a temperature of at least about 450°C, wherein the ratio of ~~hydrogen~~ to oxygen steam to other gases in the ~~mixture~~ rapid thermal process chamber is in the range of about 0.1 to about ~~[[0.8]]~~ 0.5, and wherein the pressure of said rapid thermal process chamber is held at about atmospheric pressure; and

subjecting the dielectric film to a second heat treatment in an ambient comprising a stabilizing gas selected from the group consisting of N₂, O₂, O₃, NO, and N₂O.

Claims 9-10 (Canceled).

11. (Currently amended) The method of claim 8 wherein the wet oxidation with steam process is performed at a temperature less than the temperature of said second heat treatment.

12. (Previously presented) The method of claim 8 wherein subjecting the dielectric film to a heat treatment in an ambient comprising a stabilizing gas is performed in the rapid thermal process chamber.

Claims 13-41 (Canceled).

42. (Currently amended) A method of fabricating a semiconductor device comprising:

depositing an oxygen-deficient dielectric film having a dielectric constant of at least about 25 over a semiconductor substrate;

subjecting the dielectric film to a densifying treatment to stabilize said film by heating said semiconductor substrate; and

subjecting the stabilized dielectric film to a wet oxidation with steam process provided by heating a mixture of hydrogen and oxygen gases in a rapid thermal process chamber at a temperature of at least about 450°C to form steam within said rapid thermal process chamber.

43. (Canceled).

44. (Currently amended) A method of fabricating a semiconductor device comprising:

depositing an oxygen-deficient dielectric film having a dielectric constant of at least about 25 over a semiconductor substrate;

subjecting the dielectric film to a densifying treatment to stabilize said film by heating said semiconductor substrate;

subjecting the stabilized dielectric film to a wet oxidation with steam process provided by heating and combining a mixture of hydrogen and oxygen gases in a rapid thermal process chamber at a temperature of at least about 450°C, wherein said mixture is provided in a ratio from about 0.1 to about 0.80 of hydrogen [[and]] to oxygen [[gases]] gas [[are]] being combined in said rapid thermal process chamber and said rapid thermal process chamber has having a pressure of around 1 millitorr; and

subjecting the dielectric film to a second heat treatment in an ambient comprising a stabilizing gas selected from the group consisting of N₂, O₂, O₃, NO, and N₂O.

Claims 45-47 (Canceled).